High Power Activity: NASA's Deep Impact Mission

Decision Making: Defend This!

STUDENT PRESENTATION GUIDE

BACKGROUND INFORMATION

In this activity, you and your group will build a case for whether or not an additional camera(s) should be placed on the Deep Impact spacecraft. You will create a presentation that you will use to inform and convince others in the activity that follows.

Use your group's research about comets, the Deep Impact mission, and the feasibility of mounting an additional camera(s) on the spacecraft to prepare your presentation as well as a justification that takes into account the cost, risk and benefits, and quality (meeting science objectives). Your group's presentation should include a specific plan that includes your



position, arguments, and evidence supporting or refuting the use of an additional camera(s). You should give details for communicating your group's claims and ideas as well as pros and cons (risks versus benefits) for mounting an additional camera(s) on the spacecraft.

Use the following guidelines to help prepare to "defend this!"

PRESENTATION PREPARATION GUIDELINES

1. Provide a "description" of the position your group supports.

2. What evidence supports your position? What evidence or data does not support your position, or possibly even directly opposes it? Use as much specific subject matter as possible in this section.

4.	What strategies will you use to present your arguments? Be prepared to present an explanation or illustration that clearly displays:			resent an explanation or
How your group generated its evidence or data.			or data.	
What process your group used to analyze its evidence.				
	How your group's analysis led to your conclusion.			
	 Visual representations of the above, including use of poster boards, transparencies, computer graphics, etc. 			
5.	How will your group satisfy the following stakeholders (those individuals who have an interest or investment in the outcome of the decision), considering that each will have different concerns and questions, and often these will depend on numerous human factors? Using the table below, anticipate what each representative group is most concerned with, and how they might react to different aspects of your plan. (Try to find at least one aspect that would prove disagreeable to each group.) How will your group satisfy or counter their question or concern?			
Stakeholders		Stakeholders' Primary Concerns	Stakeholders' Reactions To Your Position	Your Defense Strategy
Mission Scientist				
Mission Engineer				
Space Agency Administrator				
Astronomer				
Education and Public Outreach Manager				
DE	PECENTAT	ION GUIDE: DEEEN	ID THICK	DEEP IMPACT 2

3. What arguments or logical reasoning will you make to support your position?

6. How does your position provide benefits in excess of the risks or costs? How does it minimize undesirable side effects? How does it minimize costs? (Remember that risk itself cannot ever be completely eliminated.) Be very systematic and objective in your approach, both in determining the positive balance your group hopes to portray, as well as in being considerate of the audiences you will address.

7. What creative and interest-generating techniques and materials will your group use to make its presentation? (Remember that a person, not scoring machinery, will determine whether or not an additional camera(s) will fly on the spacecraft.)